

CLAIM AMENDMENT

Please amend the claims as follows

1. (Currently amended) A method for producing a transformed maize plant comprising the steps of:

inserting into a transformable maize tissue a nucleic acid comprising a selectable marker gene to obtain a transformed maize tissue;

culturing the transformed maize tissue for a period of time from about 7 days to about 42 days at a temperature of from ~~about 28.5~~³⁰°C to about 3[[5]]4°C in a selection media containing a selection compound that inhibits the growth of non-transformed maize tissue and permits the continued growth of transformed maize tissue;

identifying and selecting transformed maize tissue that grows in the selection media ; and regenerating a transformed maize plant from the selected transformed maize tissue.

2. (Original) The method of claim 1 wherein the period of time in the selection media is between about 7 days and about 28 days.

3. (Canceled).

4. (Currently amended) The method of claim [[3]]1 wherein the selection temperature is 30°C.

5. (Currently amended) The method of claim [[3]]1 wherein the selection temperature is maintained for a period of about 1-14 days.

6. (Original) The method of claim 1 wherein the selection is performed in a single vessel without replacing or replenishing the selection media during the selection period.

7. (Original) The method of claim 1 wherein the selection compound is a herbicide.

8. (Original) The method of claim 7 wherein the herbicide is selected from the group consisting of glyphosate, bialophos, phosphinothricin or Basta.

9. (Original) The method of claim 1 wherein the nucleic acid is inserted into the maize tissue by inoculation with an *Agrobacterium* containing said nucleic acid.
10. (Original) The method of claim 9 wherein the *Agrobacterium* inoculation is performed for less than about 20 minutes.
11. (Original) The method of claim 9 wherein the *Agrobacterium* inoculation is performed by contacting the transformable maize tissue with filter paper saturated with the *Agrobacterium* containing the nucleic acid.
12. (Original) The method of claim 11 wherein the filter paper contacts the transformable maize tissue for between about 5 and about 60 minutes.
13. (Original) The method of claim 9 where in the *Agrobacterium* inoculation is performed by spotting the maize tissue with about 1μL of *Agrobacterium* containing the nucleic acid.
14. (Original) A transgenic maize plant produced by the method of claim 1.
15. (Currently amended) A method for producing a transformed ~~cereal~~ wheat, rice, barley, or sorghum plant comprising the steps of:
- inserting into a transformable ~~cereal~~ wheat, rice, barley, or sorghum tissue a nucleic acid comprising a selectable marker gene to obtain a transformed cereal tissue;
- culturing the transformed ~~cereal~~ tissue for a period of time from about 7 days to about 42 days at a temperature of from ~~about 28.5~~ 30°C to about ~~[[35]]~~ 34°C in a selection media containing a selection compound that inhibits the growth of non-transformed ~~cereal~~ tissue and permits the continued growth of transformed ~~cereal~~ tissue;
- identifying and selecting transformed ~~cereal~~ tissue that grows in the selection media; and
- regenerating a transformed ~~cereal~~ plant from the selected transformed ~~cereal~~ wheat, rice, barley, or sorghum tissue.
16. (Original) The method of claim 15 wherein the period of time in the selection media is between about 7 days and about 28 days.

17. (Canceled).
18. (Currently amended) The method of claim ~~[[17]]~~15 wherein the selection temperature is 30°C.
19. (Currently amended) The method of claim ~~[[17]]~~15 wherein the selection temperature is maintained for a period of about 1-14 days.
20. (Original) The method of claim 15 wherein the selection is performed in a single vessel without replacing or replenishing the selection media during the selection period.
21. (Original) The method of claim 15 wherein the selection compound is a herbicide.
22. (Original) The method of claim 21 wherein the herbicide is selected from the group consisting of glyphosate, bialophos, phosphinothricin or Basta.
23. (Currently amended) The method of claim 15 wherein the nucleic acid is inserted into the ~~maize~~-tissue by inoculation with an *Agrobacterium* containing said nucleic acid.
24. (Original) The method of claim 23 wherein the *Agrobacterium* inoculation is performed for less than about 20 minutes.
25. (Currently amended) The method of claim 23 wherein the *Agrobacterium* inoculation is performed by contacting the transformable ~~cereal~~-tissue with filter paper saturated with the *Agrobacterium* containing the nucleic acid.
26. (Original) The method of claim 25 wherein the filter paper contacts the transformable maize tissue for between about 5 and about 60 minutes.
27. (Currently amended) The method of claim 23 where in the *Agrobacterium* inoculation is performed by spotting the ~~maize~~-tissue with about 1 µL of *Agrobacterium* containing the nucleic acid.
28. (Currently amended) A transgenic-~~cereal~~ wheat, rice, barley, or sorghum plant produced by the method of claim 15.

29. (Withdrawn) A method for increasing the transformation efficiency of a cereal transformation process comprising limiting the anaerobiosis effect during the inoculation of *Agrobacterium* to the transformable cereal tissue.

30. (Previously presented) The method of claim 1, wherein the transformable maize tissue is an immature embryo and the nucleic acid is inserted by inoculation with an *Agrobacterium* containing said nucleic acid.